

What is claimed is:

1. A magneto-optical recording medium device at least
reproducing information from a magneto-optical recording
5 medium, comprising:

an optical head irradiating a light beam onto the
magneto-optical recording medium; and

a bias magnetic field generator applying a bias
magnetic field to the magneto-optical recording medium,

10 wherein a peak position of the bias magnetic field
applied by the bias magnetic field generator deviates from
the center of a light beam spot irradiated onto the
magneto-optical recording medium in a predetermined
direction.

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2. The magneto-optical recording medium device
according to claim 1,

wherein the peak position of the bias magnetic field
applied by the bias magnetic field generator deviates from
20 the center of the light beam spot irradiated onto the
magneto-optical recording medium either forward or
backward to the approximate track direction of the
magneto-optical recording medium.

25 3. The magneto-optical recording medium device
according to claim 1,

wherein the bias magnetic field generator is

structured of an electromagnet which includes a yoke extending along the radius direction of the magneto-optical recording medium and a coil wound around the yoke.

5 4. The magneto-optical recording medium device according to claim 3,

 wherein the bias magnetic field generator is positioned so that the center position of the yoke in the width direction thereof deviates from the center position
10 of the light beam spot along the width direction of the yoke.

5 5. The magneto-optical recording medium device according to claim 3,

15 wherein a cross section of the yoke in the radius direction is left-right asymmetric on the magneto-optical recording medium.

6 6. The magneto-optical recording medium device
20 according to claim 5,

 wherein the cross section of the yoke is structured of step shape or wedge shape.

7 7. The magneto-optical recording medium device
25 according to claim 5,

 wherein the bias magnetic field generator is positioned so that the center position of the yoke in the

approximate track direction coincides with the center position of the light beam spot in the approximate track direction.

5 8. The magneto-optical recording medium device according to claim 3,

 wherein the yoke is formed of a plurality of materials having different residual flux densities in the approximate track direction.

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 9. The magneto-optical recording medium device according to claim 8,

 wherein the bias magnetic field generator is positioned so that the center position of the yoke in the
15 approximate track direction coincides with the center position of the light beam spot in the approximate track direction.

 10. A magneto-optical recording medium device at least
20 reproducing information from a magneto-optical recording medium, comprising:

 an optical head irradiating a light beam onto the magneto-optical recording medium; and

 a bias magnetic field generator applying a bias
25 magnetic field to the magneto-optical recording medium,

 wherein, when reproducing information from a predetermined track of the magneto-optical recording

medium, the bias magnetic field generator simultaneously applies a magnetic field for forming a front mask on the track and a magnetic field for forming a rear mask on the track, having different magnitude from the magnitude of
5 the magnetic field for the front mask.

11. The magneto-optical recording medium device according to claim 10,

wherein the peak position of the bias magnetic field
10 is set so that the magnetic field necessary for forming the front mask differs from the magnetic field necessary for forming the rear mask on an arbitrary track.

12. A magneto-optical recording medium device at least
15 reproducing information from a magneto-optical recording medium housed in a cartridge, comprising:

an optical head having an object lens mounted thereon, irradiating a light beam on the magneto-optical recording medium;

20 a cartridge holder holding the cartridge; and

a bias magnetic field generator applying a bias magnetic field to the magneto-optical recording medium,

wherein the bias magnetic field generator is disposed so as to shift the peak position of the bias magnetic field
25 in the width direction of the cartridge holder against the axis of the object lens.

13. The magneto-optical recording medium device according to claim 12,

wherein the bias magnetic field generator is structured of an electromagnet which includes a yoke 5 extending along the radius direction of the magneto-optical recording medium and a coil wound around the yoke.

14. The magneto-optical recording medium device according to claim 13,

10 wherein the bias magnetic field generator is positioned so that the center position of the yoke in the width direction thereof deviates from the center position of the light beam spot along the width direction of the yoke.

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15. The magneto-optical recording medium device according to claim 13,

wherein a cross section of the yoke in the radius direction is left-right asymmetric on the magneto-optical 20 recording medium.

16. The magneto-optical recording medium device according to claim 15,

wherein the cross section of the yoke is structured 25 of step shape or wedge shape.

17. The magneto-optical recording medium device

according to claim 15,

wherein the bias magnetic field generator is positioned so that the center position of the yoke in the approximate track direction coincides with the center 5 position of the light beam spot in the approximate track direction.

18. The magneto-optical recording medium device according to claim 13,

10 wherein the yoke is formed of a plurality of materials having different residual flux densities in the approximate track direction.

19. The magneto-optical recording medium device 15 according to claim 18,

wherein the bias magnetic field generator is positioned so that the center position of the yoke in the approximate track direction coincides with the center position of the light beam spot in the approximate track 20 direction.